

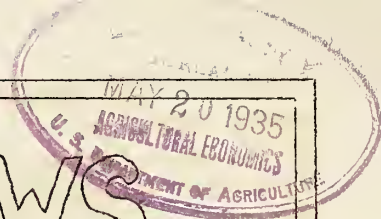
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# ELM CREEK NEWS

DEPARTMENT OF AGRICULTURE



NEWS LETTER NO. 11  
APRIL 1935

PROJECT NO. 4  
TEMPLE, TEXAS

*(4000 Copies of this issue)*

## TO OUR COOPERATORS

All field men, supervisors, C.C.C. workers and visitors on the Elm Creek Watershed should be very cautious about driving cars and trucks over the cultivated fields, especially during the cropping season. Most of the cultivated land is now planted to crops or soon will be planted. Driving over fields, turning around on the turn rows or on end rows results in damage which should be avoided.

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The Soil Erosion Service has a limited amount of Sudan grass seed available for distribution to cooperators. This seed is to be used to supplement present permanent pastures. We feel there is a shortage of all kinds of pasturage in the blackland area and believe that farmers should avail themselves of this opportunity to provide sufficient feed for their stock this summer and early fall. In many cases this will relieve the heavy grazing on the newly established pastures and will take a big load off the present feed supply. We believe this practice should become a regular part of the farming program in this section since our present permanent pastures are inadequate, particularly during the summer months. To assist in furthering this practice, we will furnish a limited amount of seed to cooperators for this purpose. If you are interested, please get in touch at once with Mr. R.L. Hensel, who is in charge of all pasture work in the Elm Creek Watershed. He will discuss your pasture conditions with you and, if possible, furnish you with seed.

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Due to the tremendous amount of weed growth in the watershed, the number of mowing machines which the Soil Erosion Service has available will be entirely inadequate. For this reason, cooperators who have machines are urged to put them in use at once. If you do not have a machine but can borrow one from your neighbor we urge you to do so at the first opportunity.

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BE SURE TO READ THE ARTICLE ON  
MOWING OF PASTURES ON PAGES 4 AND 5 OF  
THIS ISSUE.

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The importance of the completion of all terraces, fills, outlets and outlet ditches can hardly be exaggerated at this time. There is no assurance that the Government will continue to help farmers bear the expense of erosion control structures after June 15th, 1935. The expense of the structures is too great to risk the damage or loss that might occur if they were constructed on farms where the terraces, fills and ditches are not complete. In the future no structures will be built on farms where this work is not finished.

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Many cooperators who have had their pastures sodded or planted to roots are under the impression that most of these plantings are dead. An examination of a great many of these areas shows that this is not the case. There has been a lack of rainfall and in the majority of cases the roots are still lying dormant. Since the recent rains many of these roots are starting to sprout and will show up in a few days. We suggest you watch these areas and mow them to help along this young grass growth.

WORK COMPLETED DURING MARCH, 1935.

1. 25.99 miles of terrace lines run.
2. 211.96 miles of terraces constructed.
3. 335 mechanical (concrete) terrace outlet structures completed.
4. 304 terrace outlets were protected with vegetation.
5. 7,563 lineal feet of terrace outlet ditches were sodded.
6. 9 mechanical (sack & cement) gully control structures were completed.
7. 440 spreaders for sodded terrace outlets and outlet ditches were completed.
8. 23,758 acres were mapped, showing soil types, degree of erosion and slope of land.
9. 16 educational lectures were given.
10. 6,000 bulletins and pamphlets were issued.
11. 878 acres of close planted crops were sown, in strips, for erosion control.
12. A decrease of 1,148 acres of clean-tilled crops was made.
13. 270 acres of cultivated land were retired from cultivation and planted to permanent pasture.
14. 501 acres of pasture land were contour furrowed.
15. 8,000 acres were strip-cropped with Redtop, Hegari, and Sudan.

TOTAL WORK COMPLETED TO MARCH 31st.

1. 2,431.29 miles of terrace lines have been run.
2. 1,206.8 miles of terraces have been constructed.
3. 23,183 lineal feet of terrace outlet ditches have been sodded.
4. 918 acres of cultivated land have been retired from cultivation and planted to permanent pasture.
5. 888 acres of pasture land have been contour furrowed.

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Americans are destroying land faster than any other people who have ever lived on the earth.

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PHASES OF EROSION CONTROL WORK PRACTICED ON THE  
ELM CREEK PROJECT NO. 4, TEMPLE, TEXAS.

- I. Pasture improvement work.
  1. Eradication of noxious weeds.
  2. Revegetation, using seeds, sprigs and sod.
  3. Contour furrowing.
  4. Pasture terracing.
  5. Orderly grazing.
  6. Application of barnyard manure.
- II. Treatment of submarginal lands.
  1. Revegetation to permanent pasture or meadow.
  2. Terracing.
  3. Contour furrowing.
  4. Application of barnyard manure.
  5. Eradication of noxious weeds.
- III. Control measures used on cultivated areas.
  1. Terracing.
  2. Strip cropping and crop rotations.
  3. Combination of terracing and strip cropping.
  4. Contour tillage.
  5. Work done by C.C.C. workers on mechanical terrace outlets and outlet ditch structures.
  6. Vegetative terrace outlets and outlet ditches.
- IV. Demonstrational plots where soil and water losses are measured, under the following conditions:
  1. Plots where no erosion control methods are used on cultivated field.
  2. Overgrazed pasture plots.
  3. Orderly grazed pasture plots.
- V. Gully control (only when it is a menace to the farm)
  1. Diverting head water from gullies.
  2. Sloping banks of gullies.
  3. Revegetating sloped gully banks.
  4. Temporary check dams for stabilizing bottoms of gullies until vegetation may be established.

- - - - - SES - - - - -

Every year makes us safer from invasion. When the country has washed or blown away, no-one will want it.

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You wouldn't let some stranger steal your mules or farming implements. Why let erosion steal your soil?

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## MOWING WEEDY PASTURES--A NEW SERVICE FOR COOPERATORS

There are two phases of the management of pastures which require serious consideration. The first is proper grazing to maintain a good stand of palatable forage. The second is the control and eradication of weeds. With the coming of summer the weed problem comes to the front as the most serious one of the two. Weeds are now reaching the stage where they must be mowed to prevent them from producing seed and thereby not only assuring a new growth for next year but a vastly greater number of plants.

Due to the drouth conditions of 1934, valuable pasture grasses were greatly impoverished.. The dry season stunted their growth and the heavy grazing prevented them from producing many seed and storing up sufficient food for this season's early spring growth. At the same time, most of the worst weeds produced seed as usual, and these are now competing with the impoverished grasses.

On new pastures which were established by sodding this year, the transplanted sod will be weak for a long time and needs all of the care and protection which we can give it. It is always an expensive job to establish a new permanent pasture. The Soil Erosion Service realizes this and has gone to considerable expense in providing for means of taking care of both new and old pastures. Details will be given in this article. Before this is done, some interesting facts about weeds and pastures are in order.

All farmers admit that weeds are detrimental to any farm. On cultivated crops this is known to such an extent that cultivation of field crops is an established farm practice. Some people are still under the impression that the principal need of cultivation is to provide a loose friable surface or mulch. The fact is though that cultivation has for its prime object the eradication and permanent control of weeds which would otherwise over run the field and ruin or stunt the planted crop.

Identically the same thing is true of pastures. The only plants that should grow on them are grasses. Whenever weeds start coming in, they are certain to spread. Since most of them are unpalatable, they are not grazed by livestock; hence they go to seed and multiply indefinitely. By far the greatest damage they do is compete with grasses for moisture. The amount of water taken from the soil by plants is enormous. It is estimated by authorities that in twelve weeks of ordinary summer weather, pasture grasses may give up as much as twenty times their weight in water. Remember, this is for grasses. If weeds predominate an even larger amount of soil moisture is lost. This moisture belongs to the grasses. During our long, hot, dry summers they need every drop of moisture themselves. There is only one way to remedy this situation and that is by killing off weeds.

The quickest way to do this is by mowing. This method is easy, quick, and thorough. Anyone with ordinary farm experience can adjust and operate a farm mower. Several acres can be cut in a day and frequently this can be done when other farm work is lacking. When cultivated fields are either too wet or too dry to work, the mowing machine can still be used to advantage. Such idle hours spent in mowing in pastures are indeed well spent.

Even should it be necessary to drop other farm work for the few hours required to mow the average pasture in this section, the time would still be well spent.

Like all farm problems, there is the question of timeliness. The proper time to mow weeds is just at the time the flowers begin to form. The reason for this is twofold: First, the reserve food material is at a low point, frequently called the critical point; and, second, if the plants are already in full bloom, many of the flowers will still mature some seed. In a great many cases the majority of annual weeds are killed at once by the first mowing. In the case of the larger annuals such as sunflower, cockle bur, and blood weed (also called giant rag weed or horse weed) the first cutting will not be sufficient. It will take as high as three or four cuttings to do the work. Perennial (meaning they live from year to year) weeds will rarely be killed the first year. It will take a few years to eradicate them entirely.

In this connection, it is interesting to note that Nature has provided some ingenious devices to assure the perpetuation of species. The ordinary cockle bur produces two kinds of seeds in one bur. One of the seeds has an ordinary seed coat and will readily germinate the next year. The other seed though has an extra heavy seed coat that must lie in the ground at least two years before it germinates. If moisture conditions are not right the second year, the seed will lie dormant until conditions are favorable. For this reason you can mow your pasture this year and kill all of this year's plants, but you are certain to have another crop next year. Of course there will only be a fraction as many, but if you mow again the next year, you will have the crop practically killed.

After the pasture has been mowed, the dead stems and leaves dry and rot on the ground and add to the humus content of the soil. After the first cutting it will be noticed at once that the grass responds readily. Why shouldn't it? The competition for moisture and available food has been stopped and the shade caused by the leafy weed growth has been removed.

Farmers should plan on mowing their pastures at least three times this summer. In a great many cases, even oftener is desirable. The sickle bar should clear the ground about three or four inches. The Soil Erosion Service has mowing machines available for this work. Three of these are of the two-horse type and one is of the one-horse type. We are lending these to cooperators free of charge. We have a man in charge of this work who will make arrangements to see that a machine is at your place when the weeds should be cut. He will show you the proper adjustment and give you such advice as may be necessary. This service is free. Avail yourself of it.

Remember, the enjoyment of beauty with utility is appreciated by all. An even turf of lawn grass, or the palatable succulent growth of sod forming pasture, or the luxurious growth of a weaving meadow is far more pleasing to the eye than a weedy, unruly growth of worthless weeds.



## WATCH YOUR PASTURE CONTOURS

Due to the uncertainty of even, well distributed rainfall, it is felt that level terracing of pastures is perhaps the one most important phase of pasture work in this watershed. Since most pastures in this section are on the steeper slopes and on hard packed soils, the necessity of using some means of retarding the velocity of runoff is very evident. It is absolutely necessary that as much of the rain fall as possible be held on these areas. The rains that occur during the summer months are heavy and of short duration. Frequently there are long periods between showers and it is during this time that pasture grasses must draw on stored moisture in the soil. Level contours are the best answer we have in this direction. For the past several weeks we have had crews out, cooperating and assisting in the construction of these contours. Farmers are advised that after heavy rains it will be necessary to repair breaks in the low places. We expect these breaks to occur. After the first heavy rain, cooperators should examine their pasture terraces and fill in where breaks have occurred. This is of extreme importance. Failure to do so will always lead to a break in contours below, thereby causing a loss of water in all terraces. In extreme cases, gullying will take place. Be sure to examine your pasture contours frequently.

We also know that an old established pastures that have been recently contoured, weeds will most likely grow vigorously on these areas. This is to be expected but the gain in stored rainfall will so invigorate grass growth that the weed growth will soon give way to a more substantial grass growth, particularly if the pasture is mowed during the first and second years. Always bear in mind that grass seed will be washed down slope and will germinate and take root in the first terrace below. On Bermuda grass pastures the sod turned over in constructing the level contour will invariably take root and will, in a short time, re-establish itself. The same is true in a large measure of Buffalo or Mesquite grass.

We venture the opinion that by next season cooperators will agree with us that pasture contouring, plus mowing of weeds, are the two most important things in establishing and maintaining pastures in this section.

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You wouldn't send your best cow down the river----why send  
your best soil?

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B E S U R E A N D R E A D T H E A R T I C L E O N  
M O W I N G O F P A S T U R E S O N P A G E S 4 A N D 5  
O F T H I S I S S U E .

- - - - - S E S - - - - -





UNITED STATES  
DEPARTMENT OF AGRICULTURE  
SOIL EROSION SERVICE  
OFFICE OF THE REGIONAL DIRECTOR  
TEMPLE, TEXAS

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SOIL EROSION SERVICE  
UNITED STATES DEPARTMENT OF AGRICULTURE  
ELM CREEK WATERSHED--CENTRAL TEXAS  
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TEMPLE, TEXAS                      APRIL, 1935